

## ABSTRACT

A device is disclosed to determine when a resistive load is connected to a source of alternating current (“AC”) power. The device includes a signal path and an AC power path. The device also includes a processor connected to a sensing circuit  
5 for determining a current level in the AC power path. The processor indicates an off condition according to the current level. The device also includes a power switch for turning off the AC power when instructed by the processor during the off condition.